

REMARKS

Reconsideration is requested.

Claims 1-69, 74, 75, 79, 82, 91, 93, 95, 100 and 103, have been canceled, without prejudice.

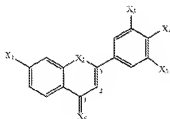
Claims 70-73, 76, 78, 80, 81, 83-90, 92, 94, 96-99, 101, 102 and 104-106 are pending. Claims 71-73, 76, 81, 83, 84, 88-90, 94, 98 and 104-106 have been withdrawn from consideration.

Rejoinder and allowance of any claim defining a method of making and/or using a product defined by an allowable claim, at an appropriate time, are requested.

The applicants note that copending application no. 11/493,040, issued as U.S. Patent No. 7,566,737 on July 28, 2009. The following claims issued in the patent:

The invention claimed is:

1. A pharmaceutical composition comprising, in a pharmaceutically acceptable support, at least one compound represented by formula (I) in association with another therapeutically active ingredient, wherein said compound is a substituted 1,3-diphenylprop-2-en-1-one derivative represented by formula (I) below:



in which:

X1 represents a halogen or a -R1 group or a group corresponding to the following formula: -G1-R1.

X2 represents a hydrogen atom or a thionitroso group or a hydroxy group or an alkylcarbonyloxy or an unsubstituted alkoxy group or a thio group or an alkylthio group or an alkylcarbonylthio group, X2 can also represent an oxygen or sulfur atom bound to carbon 3 of the propene chain, so as to form a derivative of the type 2-phenyl-4H-1-benzopyran-4-one or of the type 2-phenyl-4H-1-benzothiopyran-4-one.

X3 represents a -R3 group or a group corresponding to the following formula: -G3-R3.

X4 represents a halogen or a thionitroso group or a -R4 group or a group corresponding to the following formula: -G4-R4.

X5 represents a -R5 group or a group corresponding to the following formula: -G5-R5.

X6 is an oxygen atom or a nitrogen atom, in the case where X6 is a nitrogen atom, it carries a hydrogen atom or a hydroxy group or an alkoxy group.

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[illegible]

130

[illegible]

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1-[4-iodophenyl]-3-[3,5-dimethyl-4-tertobutyloxy-carbo-
nyldimethylmethyloxyphenyl]prop-2-en-1-one,
1-[4-iodophenyl]-3-[3,5-dimethyl-4-carboxydimethylm-
ethyloxyphenyl]prop-2-en-1-one,
1-[4-fluorophenyl]-3-[3,5-dimethyl-4-tertobutyloxy-car-
bonyldimethylmethyloxyphenyl]prop-2-en-1-one,
1-[4-fluorophenyl]-3-[3,5-dimethyl-4-carboxydimethyl-
methyloxyphenyl]prop-2-en-1-one,
1-[4-nonyloxyphenyl]-3-[3,5-dimethyl-4-tertobutyloxy-
carbonyldimethylmethyloxyphenyl]prop-2-en-1-one,
1-[4-nonyloxyphenyl]-3-[3,5-dimethyl-4-carboxydimeth-
ylmethyloxyphenyl]prop-2-en-1-one,
1-[4-propyloxyphenyl]-3-[3,5-dimethyl-4-tertobutyloxy-
carbonyldimethylmethyloxyphenyl]prop-2-en-1-one,
1-[4-propyloxyphenyl]-3-[3,5-dimethyl-4-carboxydimeth-
ylmethyloxyphenyl]prop-2-en-1-one,
1-[4-methylthiophenyl]-3-[3,5-dimethyl-4-tertobuty-
loxy-carbonyldimethylmethyloxyphenyl]prop-2-en-1-one,
1-[4-methylthiophenyl]-3-[3,5-dimethyl-4-carboxym-
ethyloxyphenyl]prop-2-en-1-one,
1-[4-methylthiophenyl]-3-[3,5-diisopropyl-4-tertobuty-
loxy-carbonyldimethylmethyloxyphenyl]prop-2-en-1-one,
1-[4-methylthiophenyl]-3-[3,5-diisopropyl-4-carboxym-
ethyloxyphenyl]prop-2-en-1-one,
1-[4-(2-bromomethyloxy)phenyl]-3-[3,5-dimethyl-4-car-
boxydimethylmethyloxyphenyl]prop-2-en-1-one,
1-[4-octadecyloxyphenyl]-3-[3,5-dimethyl-4-tertobuty-
loxy-carbonyldimethylmethyloxyphenyl]prop-2-en-1-
one,

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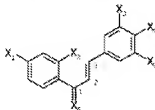
1-[4-octadecyloxyphenyl]-3-[3,5-dimethyl-4-carboxy-
dimethylmethyloxyphenyl]prop-2-en-1-one,
1-[4-dodecyloxyphenyl]-3-[3,5-dimethyl-4-tertobuty-
loxy-carbonyldimethylmethyloxyphenyl]prop-2-en-1-
one,
1-[4-dodecyloxyphenyl]-3-[3,5-dimethyl-4-carboxydim-
ethylmethyloxyphenyl]prop-2-en-1-one,
1-[4-methylxyphenyl]-3-[3,5-dimethyl-4-tertobuty-
loxy-carbonyldimethylmethyloxyphenyl]prop-2-en-1-
one,
1-[4-methylxyphenyl]-3-[3,5-dimethyl-4-carboxydim-
ethylmethyloxyphenyl]prop-2-en-1-one,
1-[2-hexyloxyphenyl]-3-[3,5-dimethyl-4-tertobutyloxy-
carbonyldimethylmethyloxyphenyl]prop-2-en-1-one,
1-[2-hexyloxyphenyl]-3-[3,5-dimethyl-4-carboxydimeth-
ylmethyloxyphenyl]prop-2-en-1-one,
1-[4-hexylthiophenyl]-3-[3,5-dimethyl-4-tertobutyloxy-
carbonyldimethylmethyloxyphenyl]prop-2-en-1-one,
1-[4-hexylthiophenyl]-3-[3,5-dimethyl-4-carboxydimeth-
ylmethyloxyphenyl]prop-2-en-1-one,
1-[4-tertobutyloxy-carbonyldimethylmethyloxyphenyl]-
3-[3,5-ditertobutyl-4-hydroxyphenyl]prop-2-en-1-
one,
1-[4-carboxydimethylmethyloxyphenyl]-3-[3,5-diter-
tobutyl-4-hydroxyphenyl]prop-2-en-1-one.

* * * * *

The applicants further note that claims of the copending application no. 10/520,078 have been allowed July 30, 2009. The following is a listing of the applicants amended claims submitted May 19, 2009, which have been allowed with the additional Examiner's amendment to cancel claims 65 and 68 and to revise line 2 of claim 69 to insert "in need thereof, an effective amount of, between "subject" and "a" (see Examiner's Amendment of July 30, 2009):

Claims 1-37. (Canceled)

38. (Currently Amended) A pharmaceutical composition, comprising one or more
~~in a~~ pharmaceutically acceptable excipients or vehicles and support, at least one
 substituted 1,3-diphenylprop-2-en-1-one derivative represented by formula (I) below :



(I)

wherein :

X1 represents a halogen or a -R1 group or a group corresponding to the
 following formula : -G1-R1,

X2 represents a hydrogen atom or a hydroxy group or an unsubstituted alkoxy
 group or a thio group or an alkylthio group,

X3 represents a -R3 group or a group corresponding to the following formula:--
 G3-R3,

X4 represents a halogen or a -R4 group or a group corresponding to the
 following formula: -G4-R4,

X5 represents a -R5 group or a group corresponding to the following formula:--
 G5-R5,

X6 is an oxygen atom or a nitrogen atom, in the case where X6 is a nitrogen atom, it carries a hydrogen atom or a hydroxy group or an alkyloxy group,

R1, R3, [[R4,]]R5, which are the same or different, represent a hydrogen atom or an unsubstituted alkyl group having from one to seven carbon atoms substituted or not by a substituent which is part of group 1 or group 2 defined hereinbelow,

G1, [[G3,]]G4, [[G5,]] which are the same or different, represent an oxygen or sulfur atom,

with at least one of the groups X1, X3, X4 or X5 corresponding to the formula --G--R in which G is a sulfur atom, and

with at least one of the groups R1, R3, R4 or R5 representing in the form of an alkyl group having from one to seven carbon atoms containing at least one substituent from group 1 or 2,

the substituents from group 1 are selected in the group consisting of carboxy groups having the formula: --COOR_5 and carbamoyl groups having the formula: $\text{--CONR}_6\text{R}_7$,

the substituents from group 2 are selected in the group consisting of sulfonic acid (SO_3H) and sulfonamide groups having the formula: $\text{--SO}_2\text{NR}_8\text{R}_9$,

with R₆ and R₇, which are the same or different, representing a hydrogen atom or an alkyl group having from one to seven carbon atoms possibly substituted by at least one group of type 1 or 2,

with the exception of compounds represented by formula (I) in which:

~~X₂ represents a hydrogen atom and X₄ represents -G₁R₁ where G₁ represents an oxygen atom and R₁ represents CH₂COOH, and~~

the optical and geometrical isomers, racemates, tautomers, salts and mixtures thereof.

Claim 39. (Cancelled)

Claim 40. (Cancelled)

Claims 41 and 42. (Cancelled)

43. (Currently Amended) The composition according to claim 38 ~~or 39~~, wherein both G₁ and G₄ represent an oxygen-sulfur atom.

Claims 44-47. (Cancelled)

48. (Currently Amended) The composition according to claim 38 ~~or 39~~, wherein X₁ is a -G₁-R₁ group in which G₁ is an oxygen atom and R₁ is an unsubstituted alkyl group containing from two to seven carbon atoms.

49. (Currently Amended) The composition according to claim 38 ~~or 39~~, wherein X₁ represents ~~a -R₁ group or a group corresponding to the formula -G₁-R₁, where G₁ represents a sulphur atom and R₁ is an unsubstituted alkyl group containing one or two carbon atoms~~ substituted by a substituent which is part of group 2 and G₁.

Claims 50-54. (Cancelled)

55. (Currently Amended) The composition according to claim 38 ~~or 39~~, wherein X₄ is a -G₄-R₄ group in which G₄ is an oxygen atom, and X₃ and[[or]] X₅ respectively represent R₃ or G₃R₃, ~~on the one hand, and R₅ or G₅R₅, on the other hand, with R₃ and R₅ being alkyl groups having one or two carbon atoms~~ a substituent from group 4.

Claim 56. (Cancelled)

57. (Currently Amended) The composition according to claim 38 ~~or~~ 39, wherein X1 represents a halogen.

Claim 58. (Cancelled)

59. (Currently Amended) The composition according to claim 38 ~~or~~ 39, wherein X1, X3, X4 ~~or~~ X5 represents ~~$\text{-OC(CH}_3)_2\text{COOR}_6$~~ $\text{-OC(CH}_3)_2\text{COOR}_6$.

60. (Currently Amended) The composition according to claim 38 ~~or~~ 39, wherein X1, X3, X4 ~~represents~~ $\text{-OC(CH}_3)_2\text{COOH}$ ~~or~~ X5 ~~represents~~ $\text{-SC(CH}_3)_2\text{COOR}_6$.

61. (Currently Amended) The composition according to claim 38 ~~or~~ 39, wherein the derivative is selected in the group consisting of:

1-[2-hydroxy-4-carboxydimethylmethoxyphenyl]-3-[3,5-di-~~tert~~-butyl-4-hydroxyphenyl]prop-2-en-1-one,

1-[2-hydroxy-4-ethoxycarbonyldimethylmethoxyphenyl]-3-[3,5-di-~~tert~~-butyl-4-hydroxyphenyl]prop-2-en-1-one,

1-[2-hydroxyphenyl]-3-[3-carboxydimethylmethoxy-4-hydroxy-5-~~tert~~-butylphenyl]prop-2-en-1-one,

1-[2-hydroxyphenyl]-3-[3-isopropylloxycarbonyldimethylmethoxy-4-hydroxy-5-~~tert~~-butylphenyl]prop-2-en-1-one,

1-[2-hydroxy-4-chlorophenyl]-3-[3-carboxydimethylmethoxy-4-hydroxy-5-~~tert~~-butylphenyl]prop-2-en-1-one,

1-[2-hydroxy-4-chlorophenyl]-3-[3-isopropylloxycarbonyldimethylmethoxy-4-hydroxy-5-~~tert~~-butylphenyl]prop-2-en-1-one,

1-[2-hydroxyphenyl]-3-[3-carboxydimethylmethyl-4-hydroxy-5-
 tertbutylphenyl]prop-2-en-1-one;

1-[2-hydroxyphenyl]-3-[3-isopropylloxycarbonyldimethylmethyl-4-hydroxy-5-
 tertbutylphenyl]prop-2-en-1-one;

1-[2-hydroxy-4-chlorophenyl]-3-[3-carboxydimethylmethyl-4-hydroxy-5-
 tertbutylphenyl]prop-2-en-1-one;

1-[2-hydroxy-4-chlorophenyl]-3-[3-isopropylloxycarbonyldimethylmethyl-4-
 hydroxy-5-tertbutylphenyl]prop-2-en-1-one;

1-[2-hydroxy-4-chlorophenyl]-3-[3,5-dimethoxy-4-
 carboxydimethylmethyloxyphenyl]prop-2-en-1-one;

1-[2-hydroxy-4-chlorophenyl]-3-[3,5-dimethoxy-4-
 isopropylloxycarbonyldimethylmethyloxyphenyl]prop-2-en-1-one;

1-[2-hydroxyphenyl]-3-[3,5-dimethoxy-4-carboxydimethylmethyloxyphenyl]prop-2-
 en-1-one;

1-[2-hydroxyphenyl]-3-[3,5-dimethoxy-4-isopropylloxycarbonyl
 dimethylmethyloxyphenyl]prop-2-en-1-one;

1-[2-hydroxy-4-carboxydimethylmethyloxyphenyl]-3-[3,5-di-methoxy-4-
 hydroxyphenyl]prop-2-en-1-one;

1-[2-hydroxy-4-isopropylloxycarbonyldimethylmethyloxyphenyl]-3-[3,5-dimethoxy-
 4-hydroxyphenyl]prop-2-en-1-one;

1-[2-hydroxy-4-chlorophenyl]-3-[3,4-dihydroxy-5-
 carboxydimethylmethyloxyphenyl]prop-2-en-1-one;

1-[2-hydroxy-4-chlorophenyl]-3-[3,4-dihydroxy-5-
isopropoxyloxycarbonyldimethylmethoxyphenyl]-prop-2-en-1-one,
1-[2-hydroxy-4-carboxydimethylmethoxyphenyl]-3-[3,5-dimethyl-4-
hydroxyphenyl]prop-2-en-1-one,
1-[2-hydroxy-4-isopropoxyloxycarbonyldimethylmethoxyphenyl]-3-[3,5-dimethyl-4-
hydroxyphenyl]prop-2-en-1-one,
1-[2-hydroxy-4-chlorophenyl]-3-[3,5-dimethyl-4-
carboxydimethylmethoxyphenyl]prop-2-en-1-one,
1-[2-hydroxy-4-chlorophenyl]-3-[3,5-dimethyl-4-
isopropoxyloxycarbonyldimethylmethoxyphenyl]prop-2-en-1-one,
1-[2-hydroxyphenyl]-3-[3,5-dimethyl-4-carboxydimethylmethoxyphenyl]prop-2-
en-1-one,
1-[2-hydroxyphenyl]-3-[3,5-dimethyl-4-isopropoxyloxycarbonyl
dimethylmethoxyphenyl]prop-2-en-1-one,
1-[2-hydroxyphenyl]-3-[4-carboxydimethylmethylthiophenyl]prop-2-en-1-one,
1-[2-hydroxyphenyl]-3-[4-isopropoxyloxycarbonyldimethylmethylthiophenyl]prop-2-
en-1-one,
1-[2-hydroxy-4-ethoxycarbonyldimethylmethoxyphenyl]-3-[3,5-ditertbutyl-4-
hydroxyphenyl]prop-2-en-1-one,
1-[2-hydroxy-4-carboxydimethylmethoxyphenyl]-3-[4-methylthiophenyl]prop-2-
en-1-one,

1-[4-chlorophenyl]-3-[3,5-dimethyl-4-
 tertbutoxycarbonyldimethylmethoxyphenyl]prop-2-en-1-one,
 1-[4-chlorophenyl]-3-[3,5-dimethyl-4-
 isopropoxyxycarbonyldimethylmethoxyphenyl]prop-2-en-1-one,
 1-[4-chlorophenyl]-3-[3,5-dimethyl-4-carboxydimethylmethoxyphenyl]prop-2-en-
 1-one,
 1-[2-hydroxyphenyl]-3-[4-carboxydimethylmethylthiophenyl]prop-2-en-1-one,
 4-[4-chloro-2-hydroxyphenyl]-3-[4-carboxydimethylmethylthiophenyl]prop-2-en-1-
 one,
 1-[4-carboxydimethylmethoxyphenyl]-3-[3,5-dimethyl-4-hydroxyphenyl]prop-2-
 en-1-one,
 1-[4-methylthiophenyl]-3-[4-carboxydimethylmethoxyphenyl]prop-2-en-1-one,
 1-[4-carboxydimethylmethylthiophenyl]-3-[4-methylthiophenyl]prop-2-en-1-one,
 4-[2-hydroxy-4-bromophenyl]-3-[3,5-dimethyl-
 4-carboxydimethylmethoxyphenyl]prop-2-en-1-one,
 1-[4-carboxydimethylmethoxyphenyl]-3-[4-methylthiophenyl]prop-2-en-1-one,
 1-[4-methylthiophenyl]-3-[3,5-dimethyl-4-
 tertbutoxycarbonyldimethylmethoxyphenyl]prop-2-en-1-one,
 1-[4-methylthiophenyl]-3-[3,5-dimethyl-4-
 isopropoxyxycarbonyldimethylmethoxyphenyl]prop-2-en-1-one,
 1-[4-methylthiophenyl]-3-[3,5-dimethyl-4-carboxydimethylmethoxyphenyl]prop-
 2-en-1-one,

1-[2-methoxyphenyl]-3-[3,5-dimethyl-4-
 tertbutyloxy-carbonyldimethylmethoxyphenyl]prop-2-en-1-one,
 1-[2-methoxyphenyl]-3-[3,5-dimethyl-4-carboxydimethylmethoxyphenyl]prop-2-
 en-1-one,
 1-[4-hexyloxyphenyl]-3-[3,5-dimethyl-4-
 tertbutyloxy-carbonyldimethylmethoxyphenyl]prop-2-en-1-one,
 1-[4-hexyloxyphenyl]-3-[3,5-dimethyl-4-carboxydimethylmethoxyphenyl]prop-2-
 en-1-one,
 1-[2-methoxy-4-chlorophenyl]-3-[3,5-dimethyl-4-
 tertbutyloxy-carbonyldimethylmethoxyphenyl]prop-2-en-1-one,
 1-[2-methoxy-4-chlorophenyl]-3-[3,5-dimethyl-4-
 carboxydimethylmethoxyphenyl]prop-2-en-1-one,
 1-[4-heptylphenyl]-3-[3,5-dimethyl-4-
 tertbutyloxy-carbonyldimethylmethoxyphenyl]prop-2-en-1-one,
 1-[4-heptylphenyl]-3-[3,5-dimethyl-4-carboxydimethylmethoxyphenyl]prop-2-en-
 1-one,
 1-[4-bromophenyl]-3-[3,5-dimethyl-4-
 tertbutyloxy-carbonyldimethylmethoxyphenyl]prop-2-en-1-one, and
 1-[4-bromophenyl]-3-[3,5-dimethyl-4-carboxydimethylmethoxyphenyl]prop-2-en-
 1-one.

62. (Currently Amended) The composition according to claim 38-er-39, wherein
 the derivative is selected in the group consisting of:

1-[4-chlorophenyl]-3-[3,5-dimethyl-4-carboxydimethylmethoxyphenyl]prop-2-en-1-one,

1-[4-methylthiophenyl]-3-[3,5-dimethyl-4-carboxydimethylmethoxyphenyl]prop-2-en-1-one,

1-[4-hexyloxyphenyl]-3-[3,5-dimethyl-4-carboxydimethylmethoxyphenyl]prop-2-en-1-one, and

1-[4-bromophenyl]-3-[3,5-dimethyl-4-carboxydimethylmethoxyphenyl]prop-2-en-1-one.

63. (Cancelled)

64. (Cancelled)

65. (Currently Amended) The composition according to claim 38-~~er~~39, wherein said composition is aimed for the treatment of a pathology related to deregulations of lipid and/or glucose metabolism-.

66. (Canceled)

67. (Cancelled)

68. (Withdrawn – Currently Amended) A method of treatment of pathologies related to deregulations of lipid and/or glucose metabolism comprising administering to a subject a composition as defined in claim 38-~~er~~39.

69. (Withdrawn – Currently Amended) A method for the treatment of diabetes, atherosclerosis or obesity comprising administering to a subject a composition according to claim 38-~~er~~39.

The teleconference with the Examiner on or about August 3, 2009 is acknowledged, with appreciation. The undersigned understood the Examiner to advise during the teleconference that with the filing of the attached Terminal Disclaimer, the

NAJIB et al
Appl. No. 10/520,079
Atty Ref.: 3665-129
Amendment
September 8, 2009

search would be expanded to include additional species and that any further rejection would be made in a non-final Office Action. The attached Terminal Disclaimer is filed without prejudice and to advance prosecution.

Entry and consideration of the present Response and the attached Terminal Disclaimer, withdrawal of the remaining obviousness-type double patenting rejection of claims 69, 70, 74, 77, 80, 85-87, 92, 93, 96, 97, 99, 101 and 102 over claims 19, 30, 31 and 34-38 of U.S. Application No. 10/585,329, which issued as U.S. Patent No. 7,547,729, and a Notice of allowance are requested.

The Examiner is requested to contact the undersigned, preferably by telephone, in the event anything further is required.

Respectfully submitted,

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